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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO
**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Complete if Known

Application Number ~~10/664,421~~ 10/789,818 NASH
Filing Date 09/16/2003
First Named Inventor Ryan Bremer
Group Art Unit 1656
Examiner Name Nashed
Attorney Docket Number 039363-0703

Sheet

1

of

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U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (If known)			
NN	A1	20010008765		Shinoki et al.	07/19/2001	
	A2	20010012537		Anderson et al.	08/09/2001	
	A3	20010014448		Chappa et al.	08/16/2001	
	A4	20010014449		Nerenberg et al.	08/16/2001	
	A5	20010016322		Caren et al.	08/23/2001	
	A6	20010018642		Balaban et al.	08/30/2001	
	A7	20010019827		Dawson et al.	09/06/2001	
	A8	6100254		Budde et al.	08/08/2000	
NN	A9	6197495		Qui et al.	03/06/2001	

UNPUBLISHED U.S. PATENT APPLICATION DOCUMENTS

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		Office ³	Number ⁴	Kind Code ⁵ (If known)				
NN	A10	WO	99/26966		The Regents of the University of California	06-03-1999		
NN	A11	WO	01/58951		Stichting Voor de Technische Wetenschappen	08-16-2001		
NN	A12	WO	02/24722		Prochon Biotech Ltd.	03-28-2002		

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶

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NN	A13	BOEHM, <i>et al.</i> , "Novel Inhibitors of DNA Gyrase: 3D Structure Based Biased Needle Screening, Hit Validation by Biophysical Methods, and 3D Guided Optimization. A Promising Alternative to Random Screening," <i>J. Med. Chem.</i> 43:2664-2674 (2000)	
	A14	BOHACEK, <i>et al.</i> , "Multiple Highly Diverse Structures Complementary to Enzyme Binding Sites: Results of Extensive Application of a <i>de Novo</i> Design Method Incorporating Combinatorial Growth," <i>J. Am. Chem. Soc.</i> 116:5560-5571 (1994)	
	A15	CHONG, <i>et al.</i> , "Molecular dynamics and free-energy calculations applied to affinity maturation in antibody 48G7," <i>PNAS</i> 96:14330-14335 (1999)	
	A16	CORNELL, <i>et al.</i> , "A Second Generation Force Field for the Simulation of Proteins, Nucleic Acids, and Organic Molecules," <i>J. Am. Chem. Soc.</i> 117:5179-5197 (1995)	
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	A18	DOWNS and WILLETT, "Similarity Searching and Clustering of Chemical-Structure Databases Using Molecular Property Data," <i>J. Chem. Inf. Comput. Sci.</i> 34:1094-1102 (1994)	
	A19	ELCOCK, Realistic modeling of the denatured states of proteins allows accurate calculations of the pH dependence of protein stability. <i>J. Mol. Biol.</i> , 294:1051-1062, (1999).	
	A20	FELDER, "The Challenge of Preparing and Testing Combinatorial Compound Libraries in the Fast Lane, at the Front End of Drug Development," <i>Chimia</i> 48:531-541 (1994)	
	A21	GILLILAND and LADNER, Crystallization of biological macromolecules for X-ray diffraction studies. <i>Current Opinion in Structural Biology</i> , 6:595-603, 1996.	
	A22	JARVIS and PATRICK, "Clustering Using a Similarity Measure Based on Shared Near Neighbors," <i>IEEE Transactions on Computers</i> 11:1025-1034 (1973)	
	A23	KE and DOUDNA, Crystallization of RNA and RNA-protein complexes. <i>Methods</i> , 34:408-414, (2004).	
NN	A24	MASSOVA and KOLLMAN, "Computational Alanine Scanning to Probe Protein - Protein Interactions: A Novel Approach to Evaluate Binding Free Energies," <i>Journ. of Amer. Chem. Soc.</i> 121(36):8133-8143 (1999)	

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DLMR_286455.1

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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known	
		Application Number	40/664,424 10/789,818 A/E
		Filing Date	09/16/2003
		First Named Inventor	Ryan Bremer
		Group Art Unit	1656
		Examiner Name	Nashed
Sheet	3	of	4
		Attorney Docket Number	039363-0703

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
NN	A25	MCGOVERN, <i>et al.</i> , "A Common Mechanism Underlying Promiscuous Inhibitors from Virtual and High-Throughput Screening," <i>J. Med. Chem.</i> 45:1712-1722 (2002)	
	A26	OBRECHT, <i>et al.</i>, "Solid-Supported Combinatorial and Parallel Synthesis of Small Molecular Weight Compound Libraries," <i>Linker Mol. & Cleav. Strat.</i> P. 85. Incomplete citation.	
NN	A27	OWEN, <i>et al.</i> , "Two Structures of the catalytic domain of phosphorylase kinase: an active protein kinase complexed with substrate analogue and product," <i>Curr. Biol. Ltd.</i> 3:467-482 (1995)	
NN	A28	PEARLMAN and CHARIFSON, "Are Free Energy Calculations Useful in Practice? A Comparison with Rapid Scoring Functions for the p38 MAP Kinase Protein System," <i>J. Med. Chem.</i> 44:3417-3423 (2001)	
NN	A29	RIPKA, <i>et al.</i> , "Aspartic Protease Inhibitors Designed from Computer-Generated Templates Bind as Predicted," <i>Org. Lett.</i> 15:2309-2312 (2001)	
NN	A30	WIENCEK, New strategies for protein crystallization growth. <i>Ann.Rev.Biomed.Eng.</i> , 1:505-534, (1999).	
NN	A31	WILLETT, "Chemical Similarity Searching," <i>J. Chem. Inf. Comput. Sci.</i> 38:983-996 (1998)	

Examiner Signature	/Nashaat Nashed/ (01/30/2007)	Date Considered	
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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete If Known	
		Application Number Filing Date First Named Inventor Group Art Unit Examiner Name Attorney Docket Number	10/684,421 10/789,818 09/16/2003 Ryan Bremer 1656 Nashed 039363-0703
Sheet	4	of	4

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
NN	A32	YANG et al., Peptide analogs from E-cadherin with different calcium-binding affinities. J. Peptide Research, 55:203-215, 2000.	

Examiner Signature	/Nashaat Nashed/ (01/30/2007)	Date Considered	
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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	10/789,818
Sheet 1 of 2		Filing Date	02/27/2004
		First Named Inventor	Prabha Ibrahim
		Art Unit	1656
		Examiner Name	Nashed, Nashaat T.
		Attorney Docket Number	039363-1202

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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NN	A1	US-5837524	11.17.1998	Schlessinger et al.	
	A2	US-5942428	08.24.1999	Mohammadi et al.	
	A3	US-6188254	08.08.2000	Budde et al.	
	A4	US-6197495	05.06.2001	Chu et al.	

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NN	A5	Cohen et al., Molecular modeling software and methods for medicinal chemistry. Journal of Medicinal Chemistry, 33(3): 883-894, 1990.				
	A6	Gilliland and Ladner, Crystallization of biological macromolecules for X-ray diffraction studies. Current Opinion in Structural Biology, 6:595-603, 1996.				
	A7	Ke and Doudna, Crystallization of RNA and RNA-protein complexes. Methods, 34:408-414, 2004.				
	A8	Wiencek et al, New strategies for protein crystal growth. Annual Review of Biomedical Engineering, 01:505-534, 1999.				

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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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NN	A9	International Search Report for PCT Application PCT/US2004/005904	

Crossed over references are duplicates of other IDS's.

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First Named Inventor	Prabha Ibrahim
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NN	A2	5804390		Fesik et al.	09-08-1998	
	A3	6197495		Gai et al.	03-06-2001	
	A4	6297021		Nienaber et al.	10-02-2001	
NN	A5	6465484		Bilodeau et al.	10-15-2002	
	A6	20020048782		Lev et al.	04-25-2002	
	A7	20010008765		Shinoki, Hiroshi et al.	07/19/2001	
	A8	20010012597		Anderson, Norman G. et al.	08/09/2001	
	A9	20010014448		Chappa, Ralph A. et al.	08/16/2001	
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NN	A14	EP	0,154,734		Immunex Corporation	08-29-1990		
NN	A15	WO	96/18738		Sugen, Inc.	06-20-1996		
NN	A16	WO	97/46313		Array Technologies	12-11-1997		
NN	A17	WO	98/35056		Merck & Co., Inc.	08-13-1998		
NN	A18	WO	99/63931		The Salk Institute for Biological Studies	12-16-1999		
NN	A19	WO	99/09217		Hyseq, Inc.	02-25-1999		

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	A20	WO	99/20960		The Regents of the University of California	06-09-1999		
NN	A21	WO	99/51773		Phylos, Inc.	10-14-1999		
NN	A22	WO	01/58951		Stichting Voor de Technische Wetenschappen	08-16-2001		
	A23	WO	02/24722		Prochen Biotech Ltd.	03-28-2002		

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NN	A24	Ashani and Wilson, A covalent affinity column for the purification of acetylcholinesterase. Biochem. Biophys. Acta, 276:317-322, 1972.	
	A25	BOEHM, et al., "Novel Inhibitors of DNA Gyrase: 3D Structure Based Biased Needle Screening, Hit Validation by Biophysical Methods, and 3D Guided Optimization. A Promising Alternative to Random Screening," J. Med. Chem. 43:2664-2674 (2000)	
	A26	BOHACEK, et al., "Multiple Highly Diverse Structures Complementary to Enzyme Binding Sites: Results of Extensive Application of a de Novo Design Method Incorporating Combinatorial Growth," J. Am. Chem. Soc. 116:5560-5571 (1994)	
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NN	A28	COE and STORER, "Solution-phase combinatorial chemistry." Molecular Diversity, 4:1-38, 1999.	
	A29	BORNELL, et al., "A Second Generation Force Field for the Simulation of Proteins, Nucleic Acids, and Organic Molecules," J. Am. Chem. Soc. 117:5179-5197 (1995)	
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				Application Number	10/789,818
				Filing Date	02/27/2004
				First Named Inventor	Prabha Ibrahim
				Group Art Unit	1646
				Examiner Name	
Sheet	3	of	6	Attorney Docket Number	039363-1202

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.		
	A31	DOWNES and WILLETT, "Similarity Searching and Clustering of Chemical-Structure Databases Using Molecular Property Data," J. Chem. Inf. Comput. Sci. 34:1094-1102 (1994)		
	A32	ELCOCK, Realistic modeling of the denatured states of proteins allows accurate calculations of the pH dependence of protein stability. Journal of Molecular Biology, 294:1051-1062, 1999.		
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	A34	FELDER, E.R., "The Challenge of Preparing and Testing Combinatorial Compound Libraries in the Fast Lane, at the Front End of Drug Development," Chimia 48:531-541 (1994)		
NN	A35	FITZGERALD et al., Crystallographic analysis of a complex between human immunodeficiency virus type 1 protease and acetyl-pepstatin at 2.0-A resolution. The Journal of Biological Chemistry, 265 (24): 14209-14219, 1990.		
NN	A36	GELLER et al., HIV-1 protease and its inhibitors in Theoretical and Computational Methods in Genome Research. Edited by Sahai. New York: Plenum Press, 1997, p. 237-254.		
NN	A37	HENDRICKSON and OGATA, "Phase Determination from Multiwavelength Anomalous Diffraction Measurements," Methods of Enzymology 276:494-523 (1997)		
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	A39	JARVIS and PATRICK, "Clustering Using a Similarity Measure Based on Shared Near Neighbors," IEEE Transactions on Computers 41:1025-1034 (1992)		
NN	A40	KLEINBERG and WANKE, New approaches and technologies in drug design and discovery. Am. J. Health-Syst Pharm., 52: 1323-1336, 1995.		
NN	A41	LEBL et al., "One-Bead-One-Structure," Biopolymers (Peptide Science) 37:177-198 (1995)		
	A42	MASSOVA and KOLLMAN, "Computational Alanine Scanning to Probe Protein-Protein Interactions: A Novel Approach to Evaluate Binding Free Energies," Journ. of Amer. Chem. Soc. 121(36):8133-8143 (1999)		

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	A43	MCGOVERN, et al., "A Common Mechanism Underlying Promiscuous Inhibitors from Virtual and High Throughput Screening," <i>J. Med. Chem.</i> 45:1712-1722 (2002)	
NN	A44	MCPHERSON et al., The Role of X-ray crystallography in structure-based rational drug designs. Chapter 6 in Chemical Structures Approaches Ration. Drug Design. Edited by D.V. Weiner et al. Boca Raton: CRC Press, 1995, p. 161-179.	
NN	A45	NAGAR et al., "Crystal Structures of the Kinase Domain of c-Abl in Complex with the Small Molecular Inhibitors PD173956 and Imatinib (STI-571)," <i>Cancer Research</i> 62:4236-4243 (2002)	
	A46	OBRECHT, et al., "Solid-Supported Combinatorial and Parallel Synthesis of Small-Molecular-Weight Compound Libraries," <i>Linker Mol. & Cleav. Strat.</i> P. 85.	
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	A49	RIPKA, et al., "Aspartic Protease Inhibitors Designed from Computer-Generated Templates Bind as Predicted," <i>Org. Lett.</i> 15:2309-2312 (2001)	

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				Group Art Unit	1646
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NN	A50	ROSENBERRY et al., Purification of acetylcholinesterase by affinity chromatography and determination of active site stoichiometry. The Journal of Biological Chemistry, 247 (5): 1555-15565, 1972.		
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NN	A57	BOGER et al., Synthesis of a functionalized rigid bicycle[2,2,1]heptane: a useful hapten for eliciting catalytic antibodies. Journal of Organic Chemistry, 59:5078-5079, 1994.			
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